Amendments to the Claims

1. **(Previously Presented)** Method of scheduling multiple data flows for quality of service adjustment in a CDMA system, especially in a mobile telecommunication system, comprising the steps of:

receiving quality of service requirements of each data flow comprising protocol data units (PDU),

determining a priority order of the protocol data units (PDU) to be served for data transmission on a communication channel, serving the protocol data units (PDU) by dynamically creating transport block sets (TBS) to be transmitted to the physical layer (PHY-layer) with regard to the defined priority order and dependent upon allocated radio resource constraints,

the method further comprising linking two schedulers which operate, respectively, on an upper and a lower protocol layer, wherein each protocol data unit (PDU) of an incoming data flow to be transmitted is scheduled by the scheduler (PDU-scheduler) on the upper layer regarding pre-definable associated quality of service requirements into a priority list to be served by the scheduler (MAC-scheduler) of the lower layer,

and medium access control is performed by the scheduler (MAC-scheduler) of the lower layer thereby optimizing the system efficiency of data transmission by dynamically operating on the protocol data units (PDU) within the priority list.

2. **(Canceled)**

3. **(Original)** Method of claim 1, wherein the serving of the protocol data units (PDU) is performed periodically within scheduling intervals and depends on bandwidth, timing and/or power constraints.

4. **(Original)** Method of claim 1, comprising the adjusting of the transmission power required for a user equipment.

5. **(Original)** Method of claim 1, comprising an adjusting of the transmission power is comprising an initial adjustment step using predefined bit-error-rate requirements and an interference to pathloss rate estimation.

6. **(Prevously Presented)** Method of claim 5, wherein the adjusting of the transmission power comprises a subsequent momentary adjustment step using the respective previous transmission power and data rate (R_B).

7. **(Original)** Method of claim 1, wherein an overall transmission power (P_{limit}) of all active data flows is dynamically adjusted for a cell within a limit predefined by an allocated transmission power (P_{ps}).

8. **(Original)** Method of claim 1, comprising adjusting the bit error rate (BER) of the communication channel below a maximum bit error rate.

9. **(Original)** Method of claim 1, comprising ensuring a minimum data transmission rate (R_{Bmin}) and/or a maximum data transmission rate (R_{bmax}) for a user equipment.

10. (Original) Method of claim 1, comprising adjusting a transport format set depending on whether a real time service or a non real time service is requested.

11. (Original) Method of claim 1, wherein a single protocol data unit (PDU) is spread over several scheduling intervals.

12. (Original) Method of claim 1, comprising scheduling data flows on a downlink shared channel of a UMTS-System.

13. (Previously Presented) Method of claim 1, comprising scheduling data flows for different users on a dedicated channel in the downlink direction of a UMTS-System.

14. (Previously Presented) Method of claim 1, comprising scheduling data flows for a single user in an uplink direction of a UMTS-System.

15. (Previously Presented) CDMA system, especially a mobile telecommunication system comprising a transceiver unit having means for providing a priority order of protocol data units (PDU) of multiple data flows with regard to a predefined flow's quality of service requirements and for dynamically scheduling the ordered protocol data units (PDU) dependent upon allocated radio resource constraints,

the CDMA system further comprising at least two schedulers each operating on different protocol layers, wherein a scheduler (PDU-scheduler) operating on an upper layer schedules each protocol data unit (PDU) of an incoming data flow to be transmitted into a priority list to be served by a scheduler (MAC-scheduler) of a lower layer, and the scheduler (MAC-scheduler) of the lower layer performs medium access control thereby optimizing the system

efficiency of data transmission by dynamically operating on the protocol data units (PDU) within the priority list.

16. (Canceled)

17. (Original) System of claim 15 comprising scheduling means for adjusting the transmission power required for a user equipment.

18. (Original) System of claim 15 comprising scheduling means for adjusting the transmission power subsequent to the establishment of a communication channel by using the respective previous transmission power and data rate (R_B).

19. (Original) System of claim 15 comprising scheduling means for monitoring the throughput without retransmissions and to compare said throughput with a virtual bandwidth depending on an allocated transmission power (P_{ps}) for adjusting an overall transmission power (P_{limit}) within a limit predefined by said allocated transmission power (P_{ps}).

20. (Original) System of claim 15 comprising scheduling means for ensuring a minimum data transmission rate (R_{Bmin}) and/or a maximum data transmission rate (R_{bmax}) for a user equipment.

21. (Previously Presented) System of claim 15 comprising the scheduler (PDU-scheduler) of the upper layer is operating with timestamps assigning every protocol data unit (PDU) or every data flow.

22. **(Previously Presented)** System of claim 15 comprising two linked schedulers operating on the Logical-Link-Control-layer and on the Medium-Access-Control-Layer, respectively.

23. **(Previously Presented)** System of claim 15 comprising a UMTS-system.

24. **(Original)** Base transceiver station comprising a transceiver unit for using in a system of claim 15.

25. **(Original)** Mobile station comprising a transceiver unit for using in a system of claim 15.

26. **(Canceled)**

27. **(Canceled)**

28. **(Canceled)**

29. **(Canceled)**

30. **(Canceled)**

31. **(Canceled)**